



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,355	01/23/2002	Nobuyuki Kita	019519-348	5391

21839 7590 07/28/2003

BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

GILLIAM, BARBARA LEE

ART UNIT	PAPER NUMBER
----------	--------------

1752

DATE MAILED: 07/28/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/052,355

Applicant(s)

KITA ET AL.

Examiner

Barbara Gilliam

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on January 24, 2001. It is noted, however, that applicant has not filed a certified copy of the 2001-015911 application as required by 35 U.S.C. 119(b).

Claims

2. Claims 1-2 are present.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 2 recites the limitation "the laser-exposing apparatus" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

- a. To overcome this rejection applicant can simply replace "**the** laser-exposing apparatus" with "**a** laser-exposing apparatus."

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 1752

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Kita et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

a. In US 6,397,749 B1, Kita et al. teach a heat sensitive precursor of lithographic printing plates, which comprises a hydrophilic layer provided on a substrate having an ink-receptive surface or coated with an ink-receptive layer. The precursor further has a water-soluble overcoat layer on the hydrophilic layer. The overcoat layer comprises a light-heat converting agent. The heated area of the hydrophilic layer is easily removed by a fountain solution or ink when subjected to printing operations (claim 1). The ink receptive layer and/or the hydrophilic layer may comprise a light-heat converting agent (claim 2). The crosslinked hydrophilic layer comprises a colloid of at least one compound selected from the group consisting of oxides or hydroxides of beryllium, magnesium, aluminum, silicon, titanium, boron, germanium, tin, zirconium, iron, vanadium, antimony and transition metals (claim 3). The ink receptive layer, hydrophilic layer and water-soluble overcoat layer of Kita et al. meet the present limitations for the same. The precursor is subjected directly to imagewise heat-sensitive recording by means of a thermal head, or undergoes light-heat

Art Unit: 1752

conversion type exposure to 700 – 1,200 nm infrared rays emitted from a solid laser, semiconductor laser, high illumination intensity flashlight or an infrared lamp (column 28, line 63 – column 29, line 37). After exposure, the precursor can be loaded in a printing machine without undergoing any further processing. Upon printing with ink and water, the overcoat layer is removed by the fountain solution at the same time the exposed area of the hydrophilic layer is removed (column 29, lines 38-46). The processing steps of Kita et al. meet the present process limitations.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kita et al.

a. As indicated in the corresponding 102(e) rejection, Kita et al. (US 6,397,749 B1) teach a heat sensitive precursor of lithographic printing plates, which comprises a hydrophilic layer provided on a substrate having an ink-receptive surface or coated with an ink-receptive layer, a water-soluble overcoat layer on the hydrophilic layer which comprises a light-heat converting agent (claim 1). The precursor is subjected directly to imagewise heat-sensitive recording and subsequently loaded in a printing machine without undergoing any further processing (column 28, line 63-column 29, line 46). Kita et al. do not teach exposing the precursor on the printing

Art Unit: 1752

machine however the Examiner asserts it is well known in the printing plate art to mount no-process plates sensitive to radiation having a wavelength in the range of 700-1,200 nm on print cylinders prior to exposure based on the teachings of Hauquier et al.

b. In US 6,068,965, Hauquier et al. teach a heat-sensitive imaging material and method for making on-press lithographic printing plates which require no processing by mounting a heat-sensitive imaging material on a print cylinder of a printing press, image-wise exposing the imaging material with an IR-laser and rotating the print cylinder while supplying an aqueous dampening liquid and/or ink to the image forming layer of the material (abstract; column 5, lines 1-17).

c. Therefore it would have been obvious to one of ordinary skill in the art to image-wise expose and supply ink/fountain solution to the printing plate precursor of Kita et al. while the precursor is directly mounted on a print cylinder based on the teachings of Kita et al. and Hauquier et al. with reasonable expectation of decreasing handling the plate and therefore contamination of the plate.

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deboer et al. in view of Teng.

a. In US 6,090,524, Deboer et al. teach a lithographic printing plate made by coating a support web with a coextensive ink receptive photothermal conversion layer and then overcoating with an ink repellent layer comprising a photothermal conversion material and crosslinked polymeric matrix containing a colloid of an oxide or a hydroxide of a metal selected from the group consisting of beryllium, magnesium, aluminum, silicon, gadolinium, germanium, arsenic, indium, tin, antimony, tellurium,

Art Unit: 1752

lead, bismuth and a transition metal (abstract). The ink receptive photothermal conversion layer meets the present limitations for the ink-receptive layer and the ink-repellent layer meets the present limitations for the hydrophilic layer. The support web is preferable a grained anodized aluminum sheet (column 4, lines 34-48) which meets the present limitations for a metallic base. The process for using the resulting lithographic plate comprises the steps of exposing the plate to a focused laser beam in the areas where ink is desired in the printing image and employing the plate on a conventional lithographic printing press without heating, processing or cleaning before printing (column 7, lines 25-35). There is no teaching of an overcoat layer as required in the present application however it would have been obvious to use an overcoat layer based on the teachings of Teng.

b. In US 6,387,595 B1, Teng teaches an on-press developable lithographic plate comprising on a substrate, a photosensitive layer and a top ultrathin ink and/or fountain solution soluble or dispersible overcoat which can provide excellent white light stability, high contrast, excellent ink receptivity and fast on-press development with out scumming (abstract; column 2, lines 57-62). The ultrathin fountain solution soluble overcoat meets the present limitations for the hydrophilic overcoat.

c. Therefore it would have been obvious to coat the lithographic printing plate of Deboer et al. with a fountain solution soluble or dispersible ultrathin overcoat layer to provide stability in white light and fast on-press development based on the teachings of Teng.

Art Unit: 1752

10. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deboer et al. in view of Teng as applied to claim 1 above, and further in view of Hauquier et al.

a. As indicated in the previous rejection, it would have been obvious to coat the lithographic printing plate of Deboer et al. with a fountain solution soluble or dispersible ultrathin overcoat layer to provide stability in white light and fast on-press development based on the teachings of Teng wherein the lithographic printing plate preferably comprises a grained anodized aluminum sheet, an ink-receptive photothermal conversion layer and an ink-repellent layer comprising a photothermal conversion material and crosslinked polymeric matrix containing a colloid of an oxide or a hydroxide of a metal selected from the group consisting of beryllium, magnesium, aluminum, silicon, gadolinium, germanium, arsenic, indium, tin, antimony, tellurium, lead, bismuth and a transition metal based on the teachings of Deboer et al. The process for using the resulting lithographic plate comprises the steps of exposing the plate to a focused laser beam in the areas where ink is desired in the printing image and employing the plate on a conventional lithographic printing press without heating, processing or cleaning before printing (column 7, lines 25-35; column 1, lines 18-20). Deboer et al. do not teach exposing the precursor on the printing machine however the Examiner asserts it is well known in the printing plate art to mount no-process plates sensitive to infrared and near infrared radiation on print cylinders prior to exposure based on the teachings of Hauquier et al.

b. In US 6,068,965, Hauquier et al. teach a heat-sensitive imaging material and method for making on-press lithographic printing plates which require no processing by mounting a heat-sensitive imaging material on a print cylinder of a

Art Unit: 1752

printing press, image-wise exposing the imaging material with an IR-laser and rotating the print cylinder while supplying an aqueous dampening liquid and/or ink to the image forming layer of the material (abstract; column 5, lines 1-17).

c. Therefore it would have been obvious to one of ordinary skill in the art to image-wise expose and supply ink/fountain solution to the printing plate precursor of Deboer et al. further comprising a fountain solution soluble or dispersible ultrathin overcoat layer while the precursor is directly mounted on a print cylinder based on the teachings of Deboer et al., Teng and Hauquier et al. with reasonable expectation of decreasing handling the plate and therefore contamination of the plate.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. In US 2001/0008740 A1, Kita teaches heat-sensitive lithographic printing plate precursor.

b. In US 6,593,057 B2, Kita teaches heat-sensitive lithographic printing plate precursor.

c. In US 6,468,717 B2, Kita et al. teach heat-sensitive lithographic printing plate precursor.

d. In US 6,357,353 B1, Vermeersch et al. teach a dry method for preparing a thermal lithographic printing plate precursor.

Art Unit: 1752

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara Gilliam whose telephone number is 703-305-1330. The examiner can normally be reached on Monday through Friday, 8:00 AM - 6:00 PM.

a. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on 703-308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

b. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Barbara Gilliam

Barbara Gilliam
Examiner
Art Unit 1752

bg
July 21, 2003